

# Darth Vader Dark Cascadian Ale

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **44**
- SRM **31.6**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **28.9 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.6 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **21.1 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **15.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Sparge using **19.5 liter(s)** of **76C** water or to achieve **28.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (81.7%)	79 %	6
Grain	Strzegom Karmel 150	0.25 kg (4.1%)	75 %	150
Grain	Biscuit Malt	0.12 kg (2%)	79 %	45
Grain	Carafa II	0.5 kg (8.2%)	70 %	1150
Sugar	Brown Sugar, Light	0.25 kg (4.1%)	100 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	8 %
Boil	Cascade	25 g	45 min	6 %
Boil	Fuggles	30 g	15 min	4.5 %
Aroma (end of boil)	Cascade	25 g	0 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis